

Bat acoustic monitoring: volunteer details and duties

Why:

Bat populations across much of eastern and Midwestern North America are declining due to the disease White Nose Syndrome (WNS). Identification of areas in Iowa where bats are most abundant is critically needed to understand the potential ramifications of WNS to Iowa. Acoustic monitoring surveys that rely on recording bat echolocation calls are an efficient way to monitor bat populations to identify areas of high bat activity in Iowa.

Where:

We will conduct acoustic monitoring for bats along 19 road transects and 6 walking transects in central, eastern, and southern Iowa. The road transects are located in the following counties: Boone, Clayton, Dubuque, Hamilton, Hardin, Jackson, Lucas, Marshall, Story, and Warren. The walking transects are located in Boone and Story counties near Ames, Iowa. The walking transects occur at 3 public parks and 3 Iowa State University research farms.

When:

Each transect (road and walking) is surveyed at night twice during the summer, once in June and once in July.

How:

Road Transects- Teams of two are necessary. Volunteers will mount a microphone to the roof of the vehicle and attach it to a bat detector in the vehicle. One person will drive while the other person will monitor the equipment and provide directions to the driver. Volunteers will drive a transect beginning 30 minutes after sunset. Drivers will proceed at 20 mph and follow specific turn-by-turn instructions to complete the transect which will be approximately 30 miles in length. Driving the route one time will take 1.5 hours plus drive time to and from the start and finish of the route.

Walking Transects- Teams of two are necessary. Volunteers will slowly walk park trails or field edges of farms for 90 minutes beginning 30 minutes after sunset carrying the bat detector with them. One volunteer will carry and monitor the equipment while the other will monitor for hazards in the dark.

Requirements:

- Flexible schedule (transects cannot be conducted during rainy, foggy, or windy conditions).
- Personal vehicle to drive the transect (or get to the walking transect location).
- Willingness to conduct a transect in June and again in July.
- Teams of at least 2 are needed to conduct a transect.
- Comfortable driving slowly (20 mph) on country roads (gravel) after dark (road transect).
- Comfortable walking slowly on park trails or field edges after dark (walking transect).
- Ability to accurately record data on datasheets.

- Willingness to coordinate with others to pick-up and exchange equipment that must be shared between transects. There will be only one acoustic unit that must be shared among 4 routes so each time volunteers would like to run their route they will need check on the availability of a unit, pick it up and then drop it off after the run's completion.
- Volunteers must be willing to commit to conducting both runs of the survey for at least one year. It is crucial that both runs are completed as directed.
- Must be able to attend a 2 hour training to be held in the latter half of May.
- Comfortable with technology and willingness to learn how to use the recording equipment.